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A Case of Enlarged Accessory Thyroid Gland at the Base of the Tongue.

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A CASE OF ENLARGED ACCESSORY THYROID GLAND AT THE BASE OF THE TONGUE.

By J. Collins Warren, M.D.,
of Boston.

Benign tumors of the mouth and tongue are sufficiently rare to authorize careful study. The case reported here serves to throw light upon a group of growths whose etiology has hitherto been but imperfectly understood.

Mrs. L. E. S., fifty-two years of age, was sent to me in April, 1892, by Dr. F. I. Knight for treatment of a tumor of the tongue. She was born in Springfield. Her parents both died of consumption, but she herself has enjoyed good health, with the exception of two attacks of pleurisy—the last nine years ago—and is at present stout and strong, and is the mother of three children, all of whom are well. She first noticed a lump in her throat about twenty-two years ago, shortly after her youngest child was born. She was at that time suffering from a "bronchial" affection, and a physician who examined her throat discovered the tumor. Since that time it has been slowly but steadily increasing in size. During an attack of grippe this winter the tumor became swollen and inflamed, and after that the lump seemed to settle back into the windpipe, and has since caused considerable irritation, obliging her to hawk and spit constantly.

The catamenia ceased about five years ago, but no special change in the tumor occurred at that time.

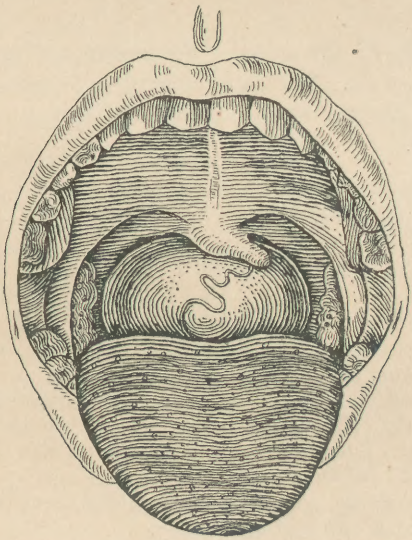
An examination of the throat showed a tumor about the size of a hen's egg (Fig. 1), situated at the base of the tongue. An examination with the laryngoscope by Dr. Knight showed that it was in no way connected with the epiglottis.

On introducing the forefinger the posterior surface of the tumor could be reached, with some difficulty, and the existence of a space between it and the epiglottis could be determined. It was covered with normal mucous membrane, and a tortuous vessel of considerable size could be seen running over the anterior surface. The tumor appeared to occupy the lower portion of the pharynx when the parts were quiescent, and it was only by drawing the tongue forcibly forward that it could be brought well into the view. Removal was advised, and the operation was performed May 4, 1892. After etherization a ligature was passed through the tip of the tongue and the jaws were held open by a gag. As the tumor could not be drawn forward into the cavity of the mouth in this way, two additional ligatures were passed through the dorsum of the tongue on either side of the tumor in the region of the papillæ circum-

vallatæ. Traction brought the whole tongue forward, so that the tumor presented between the incisor teeth and could be easily operated upon.

An incision was made on the median line, and the tumor was with slight difficulty enucleated from its position. It appeared to be situated just beneath the mucous membrane, and did not involve the substance of the tongue. A portion of the redundant mucous membrane was excised on either side and the edges of the wound were brought together with catgut sutures. Three vessels required ligature—one of them being of considerable size. The patient made an uninterrupted recovery, and two weeks later returned to her home in Springfield. The patient was seen August 11th. There was no sign of a return of the tumor.

FIG. 1.



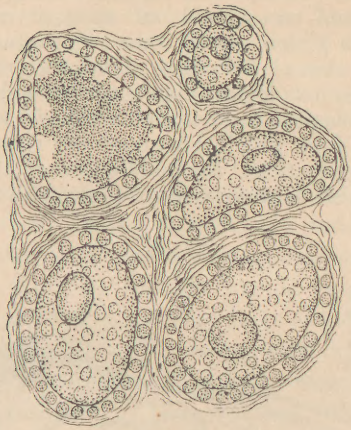
Showing position of tumor with tongue protruding as far as possible.

The following is the report of Dr. W. F. Whitney, of the Harvard Medical School, upon the microscopical structure of the tumor:

"The tumor, which had been somewhat torn during removal, was a rounded, slightly lobulated growth, the size of a small plum. The outer surface was in general smooth and fibrous. The section surface was of a reddish-yellow color, slightly translucent, and marked by minute cysts filled with a viscid yellowish colloid material.

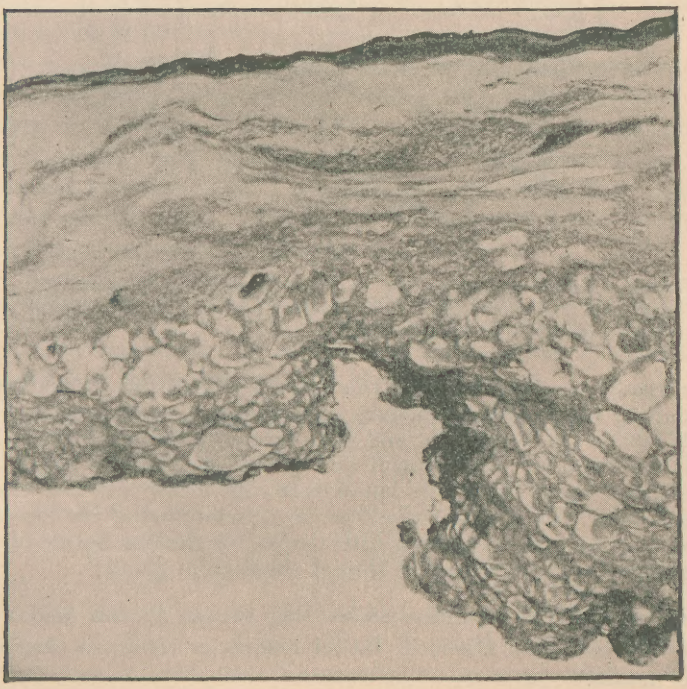
"The bulk of the growth was found, upon microscopic examination, to be made up of closed cavities, varying in size from 0.07 to 0.40 mm. in diameter. The walls of these were clothed with a low cylindrical epithelium, which in the smaller spaces seemed nearly to fill the opening, while in the larger it formed simply a lining, the rest of the space being occupied by a homogeneous substance, staining deeply the picric acid or eosin. The formation of this material by the transformation of the cells could be readily seen in the smaller cysts (Fig. 2). The walls separating the cavities were of a fibrous structure, with relatively few nuclei, varying

FIG. 2.



Microscopical section—high power.

FIG. 3.



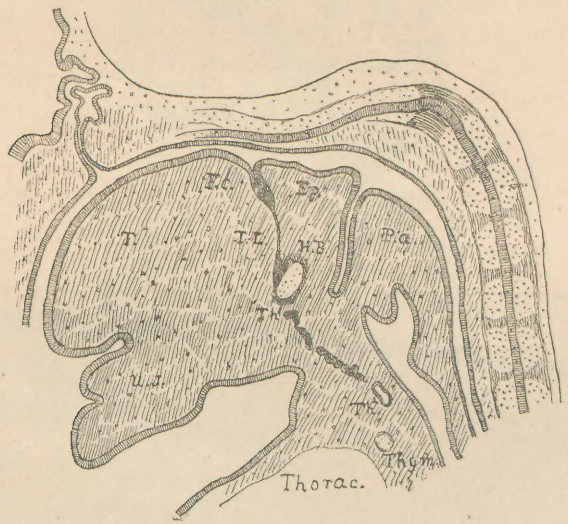
Photograph of section—low power—showing relation of glandular tissue to capsule.
a. Capsule. b. Delicate thyroid tissue partly bruised.

in width from a mere line to a band of some width. This was directly continuous with wider bands, which divided the growth into irregular, ill-defined lobules, and was spread out upon the surface as a sort of capsule (Fig. 3). In places, vessels were very abundant.

"The structure is that of a ductless gland, with colloid degeneration, and in all its essential histological details corresponds to the thyroid.

"From an embryological point of view a thyroid inclusion is perfectly possible at the place from which this tumor was removed. For, according to the latest investigations,[1] the middle lobe of the thyroid is developed in a track which is directly continuous with the foramen cæcum

FIG. 4.



Thyreoglossal track, after His.

T. Tongue. U.J. Under jaw. Thorac. Thoracic cavity. Ep. Epiglottis. H.B. Hyoid bone. F.c. Foramen cæcum. T.L. Tractus lingualis. Th. Th. Thyroid gland. Thym. Thymus gland. P.a. Arytenoid fold.

of the base of the tongue. And this track is still frequently marked in the adult by the so-called processus pyramidalis, a continuation of the middle lobe to the hyoid bone, and more rarely by the accessory thyroid glands described by Zuckerkandl and Kadyi as glandulæ supra and epihyoidea. From there it is but a short step to the foramen cæcum and the site of this growth. So, from a consideration of the structure and of the development, there is little doubt that the real nature of this exceedingly rare tumor must be that of the thyroid gland."

A search through literature shows that tumors in this region are rarely observed. Mr. Henry T. Butlin reports, in 1890, two cases of a similar nature.[2]

[1] His: Der Tractus thyreoglossus und seine Beziehungen zum Zungenbein, Arch. f. Anat. u. Physiol., anatom. Abtheil, 1881, S. 26.

[2] Clinical Society's Transactions, vol. xxiii., p. 118.

The first occurred in a female thirty-two years of age, and was thought to be about the size of a hen's egg. Tracheotomy was performed, and the tumor was removed through the mouth by an incision on the median line and scooping out the soft mass. There was a recurrence, but the tumor remained much smaller in size. The second case was also a female, twenty-three years of age. The tumor, which had existed two years, and was smaller than the former, was removed by the galvano-cautery loop.

Butlin has succeeded in collecting eight cases, including the two above mentioned. They were all females, and the ages varied from infancy to thirty-two years. One case is reported as existing near the tip of the tongue, and it seems doubtful, therefore, whether it could be placed in the same category. In one case the tumor was very large and caused the death of the infant a few hours after its birth. In the case reported by Bernays, of St. Louis, there was a decided swelling in the middle line of the neck beneath the root of the tongue, and the bulk of the tumor appears to have been in the substance of the organ. Both Bernays and Sutton have regarded these tumors as accessory thyroid glands. Butlin agrees with this view, although formerly he considered them simple adenomata. Mr. Bowlby is, however, of the opinion that these tumors are derived from the follicular glands at the back of the tongue.

I have myself twice seen tumors at the dorsum of the tongue which were probably of this nature. One was a small tumor removed from the dorsum of the tongue by one of the surgeons of the Massachusetts General Hospital some twenty years since. It was given to me for microscopical examination, and consisted of tissue resembling closely that of the thyroid gland. The second case was seen by me in May, 1888, in consultation with Dr. Knight:

The patient, Miss T., was about twenty-one years of age, and the tumor, according to Dr. Knight's report, was "about the size of the last phalanx of my ring finger." It gave her but little trouble; no operation was advised, and the patient has since been lost sight of.

Wölfler, in his *Monograph on Goitre*, which has recently appeared, mentions the case reported by Wolf (one of those included in Butlin's series) as the only one to be found in the literature of the subject.

It is well to remember that accessory thyroid glands, both lateral and median, may develop into tumors. Among these may be included mucous cysts situated near the hyoid bone or stretching in tubular form from the foramen cæcum to the hyoid bone. Some of the retro-sternal types of goitre owe their origin to those accessory glands which are situated close to the aorta. Tumors below the angle of the jaw or beneath the sterno-mastoid muscle, as well as the retro-pharyngeal, intra-laryngeal, and intra-tracheal tumors, owe their origin to lateral accessory thyroid glands. (Wölfler.)

The ease with which the base of the tongue was brought out of the mouth in this case is worth noting. This was due probably to the relaxation of the parts caused by the presence of a tumor of this size; but in part also to the ligatures passed through the base of the tongue. The posterior pillars of the fauces were made tense by this manœuvre. By dividing them the tongue could have been brought still further forward had it been necessary.